MISSOURI DEPARTMENT OF NATURAL RESOURCES
ENERGY CENTER – ENERGY REVOLVING FUND

# PROGRAMMABLE SETBACK THERMOSTAT WORKSHEET

| BUILDING | LOCATION | DATE |
|---|---|---|
| | | |

To estimate the savings possible from a temperature reduction or night setback, the following information must be known:

The existing weekly operating hours when occupied.
The existing weekly operating hours when unoccupied.
The proposed weekly operating hours when occupied.
The proposed weekly operating hours when unoccupied.
The annual heating cost.
The existing weekly operating temperature when occupied.
The existing weekly operating temperature when unoccupied.
The proposed weekly operating temperature when occupied.
The proposed weekly operating temperature when unoccupied.

## SAVINGS ESTIMATE

1. Enter the existing weekly operating hours when occupied . . . . . _____
2. Enter the existing weekly operating temperature when occupied . . . . . _____
3. Multiply line 1 by line 2 . . . . . _____
4. Enter the existing weekly operating hours when unoccupied . . . . . _____
5. Enter the existing weekly operating temperature when unoccupied . . . . . _____
6. Multiply line 4 by line 5 . . . . . _____
7. Add line 3 to line 6 . . . . . _____
8. Enter the proposed weekly operating hours when occupied . . . . . _____
9. Enter the proposed weekly operating temperature when occupied . . . . . _____
10. Multiply line 8 by line 9 . . . . . _____
11. Enter the proposed weekly operating hours when unoccupied . . . . . _____
12. Enter the proposed weekly operating temperature when unoccupied . . . . . _____
13. Multiply line 11 by line 12 . . . . . _____
14. Add line 10 to line 13 . . . . . _____
15. Subtract line 14 from line 7 . . . . . _____
16. Multiply 0.0002 by line 15 . . . . . _____

If the heating energy source is not used for any other purposes and the cost for heating the building is known, then skip lines 17 through 20 and enter the value on line 21. If the energy source supplies heating as well as other needs of the building, go to line 17.

17. Total the seven energy bills that heating is included in from October through April and enter that amount . . . $ _____
18. Enter the amount of the May energy bill that includes heating . . . . . $ _____
19. Multiply 7.0 by line 18 . . . . . $ _____
20. Subtract line 19 from line 17 AND ENTER THIS VALUE ON LINE 21 BELOW.
21. ANNUAL HEATING COST . . . . . $ _____

## ANNUAL SAVINGS

22. Multiply line 16 by line 21 . . . . . $ _____/year

## PROJECT COST

23. Enter the total cost for the proposed project including material, labor and design . . . . . $ _____

## SIMPLE PAYBACK

24. Divide line 23 by line 22 . . . . . _____ years

## DESCRIPTION PAGE

**Programmable Setback Thermostate Energy - Conservation Measure**

Describe the existing system and the proposed energy-conservation measure (use additional sheets if necessary):